

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (currently amended) A device for mounting a rotating member comprising:
a mounting ~~[[first]]~~ structure;
a bore formed in the mounting ~~[[first]]~~ structure;
a ring housed in the bore; and
~~one end of the rotating member comprising a shaft, one end of the shaft~~ inserted in the ring;~~[[,]]~~
wherein the ring comprises a diabolo shape, the diabolo shape comprising a set of inclined beams, the beams connected to a first crown of the ring and connected to a second crown of the ring. generated by a revolution about an axis of the shaft.
2. (currently amended) The device according to claim 1 wherein the diabolo is formed by a hyperboloid structure ~~comprising a set of inclined beams connected to a first crown of the ring and connected to a second crown of the ring.~~
3. (currently amended) The device according to claim 2 wherein in response to insertion of the shaft into the ring, the hyperboloid shape has an inner diameter that is wider ~~[[less]]~~ than an initial diameter of the hyperboloid shape before the insertion of the shaft, the difference in curvature forming an elastic fit over the shaft ~~rotating member~~.
4. (original) The device according to claim 2 comprising twenty beams.
5. (original) The device according to claim 3 comprising twenty beams.
6. (original) The device according to claim 2 wherein the inclination of the beams is about 50° relative to a plane perpendicular to the axis of the shaft.

7. (original) The device according to claim 3 wherein the inclination of the beams is about 50° relative to a plane perpendicular to the axis of the shaft.

8. (original) The device according to claim 4 wherein the inclination of the beams is about 50° relative to a plane perpendicular to the axis of the shaft.

9. (original) The device according to claim 6 wherein the inclination of the beams is $50^\circ \pm 10^\circ$.

10. (original) The device according to claim 6 wherein the inclination of the beams is $50^\circ \pm 5^\circ$.

11. (original) The device according to claim 1 wherein the diabolo shape has a twist angle less than or greater than 50° .

12. (original) The device according to claim 2 wherein the diabolo shape has a twist angle less than or greater than 50° .

13. (original) The device according to claim 3 wherein the diabolo shape has a twist angle less than or greater than 50° .

14. (original) The device according to claim 4 wherein the diabolo shape has a twist angle less than or greater than 50° .

15. (currently amended) The device according to claim 2 wherein the hyperboloid structure is open along an aperture from the first crown to the second crown, the apertures in the first and second crowns being diametrically opposite each other, this aperture being made in at least one diametrically opposite parts of the first and second crowns.

16. (currently amended) The device according to claim 3 wherein the hyperboloid structure is open along an aperture from the first crown to the second crown, the apertures in the first and second crowns being diametrically opposite each other, this aperture being made in at least one diametrically opposite parts of the first and second crowns.

17. (currently amended) The device according to claim 4 wherein the hyperboloid structure is open along an aperture from the first crown to the second crown, the apertures in the first and second crowns being diametrically opposite each other, ~~this aperture being made in at least one diametrically opposite parts of the first and second crowns.~~

18. (currently amended) The device according to claim 6 wherein the hyperboloid structure is open along an aperture from the first crown to the second crown, the apertures in the first and second crowns being diametrically opposite each other, ~~this aperture being made in at least one diametrically opposite parts of the first and second crowns.~~

19. (currently amended) The device according to claim 9 wherein the hyperboloid structure is open along an aperture from the first crown to the second crown, the apertures in the first and second crowns being diametrically opposite each other, ~~this aperture being made in at least one diametrically opposite parts of the first and second crowns.~~

20. (currently amended) The device according to claim 10 wherein the hyperboloid structure is open along an aperture from the first crown to the second crown, the apertures in the first and second crowns being diametrically opposite each other, ~~this aperture being made in at least one diametrically opposite parts of the first and second crowns.~~

21. (currently amended) The device according to claim ~~[[11]]~~ 12 wherein the hyperboloid structure is open along an aperture from the first crown to the second crown, the apertures in the first and second crowns being diametrically opposite each other, ~~this aperture being made in at least one diametrically opposite parts of the first and second crowns.~~

22. (original) The device according to claim 2 wherein the hyperboloid structure is open along an aperture, the aperture being made in two diametrically opposed parts of the first and second crowns.

23. (original) The device according to claim 3 wherein the hyperboloid structure is open along an aperture, the aperture being made in two diametrically opposed parts of the first and second crowns.

24. (original) The device according to claim 4 wherein the hyperboloid structure is open along an aperture, the aperture being made in two diametrically opposed parts of the first and second crowns.

25. (original) The device according to claim 6 wherein the hyperboloid structure is open along an aperture, the aperture being made in two diametrically opposed parts of the first and second crowns.

26. (original) The device according to claim 9 wherein the hyperboloid structure is open along an aperture, the aperture being made in two diametrically opposed parts of the first and second crowns.

27. (original) The device according to claim 10 wherein the hyperboloid structure is open along an aperture, the aperture being made in two diametrically opposed parts of the first and second crowns.

28. (currently amended) The device according to claim ~~[[11]]~~ 12 wherein the hyperboloid structure is open along an aperture, the aperture being made in two diametrically opposed parts of the first and second crowns.

29. (original) The device according to claim 2 wherein the first and second crowns comprise a circular, cylindrical part with a generatrix line parallel to the axis of the shaft.

30. (original) The device according to claim 3 wherein the first and second crowns comprise a circular, cylindrical part with a generatrix line parallel to the axis of the shaft.

31. (original) The device according to claim 4 wherein the first and second crowns comprise a circular, cylindrical part with a generatrix line parallel to the axis of the shaft.

32. (original) The device according to claim 6 wherein the first and second crowns comprise a circular, cylindrical part with a generatrix line parallel to the axis of the shaft.

33. (original) The device according to claim 9 wherein the first and second crowns comprise a circular, cylindrical part with a generatrix line parallel to the axis of the shaft.

34. (original) The device according to claim 10 wherein the first and second crowns comprise a circular, cylindrical part with a generatrix line parallel to the axis of the shaft.

35. (original) The device according to claim 11 wherein the first and second crowns comprise a circular, cylindrical part with a generatrix line parallel to the axis of the shaft.

36. (original) The device according to claim 15 wherein the first and second crowns comprise a circular, cylindrical part with a generatrix line parallel to the axis of the shaft.

37. (original) The device according to claim 22 wherein the first and second crowns comprise a circular, cylindrical part with a generatrix line parallel to the axis of the shaft.

38. (currently amended) The device according to claim 1 wherein ~~another~~ a second end of the shaft is disposed in ~~another~~ a fixed structure, the ~~another~~ fixed structure being ~~lighter~~ more massive or having lower sensitivity to vibratory forces generating an acoustic source than the ~~[[first]]~~ mounting structure.

39. (currently amended) The device according to claim 2 wherein ~~another~~ a second end of the shaft is disposed in ~~another~~ a fixed structure, the ~~another~~ fixed structure being ~~lighter~~ more massive or having lower sensitivity to vibratory forces generating an acoustic source than the ~~[[first]]~~ mounting structure.

40. (currently amended) The device according to claim 3 wherein ~~another~~ a second end of the shaft is disposed in ~~another~~ a fixed structure, the ~~another~~ fixed structure being ~~lighter~~ more massive or having lower sensitivity to vibratory forces generating an acoustic source than the ~~[[first]]~~ mounting structure.

41. (currently amended) The device according to claim 4 wherein ~~another~~ a second end of the shaft is disposed in ~~another~~ a fixed structure, the ~~another~~ fixed structure being ~~lighter~~ more massive or having lower sensitivity to vibratory forces generating an acoustic source than

the ~~[[first]]~~ mounting structure.

42. (currently amended) The device according to claim 6 wherein ~~another~~ a second end of the shaft is disposed ~~another~~ a fixed structure, the ~~another~~ fixed structure being ~~lighter~~ more massive or having lower sensitivity to vibratory forces generating an acoustic source than the ~~[[first]]~~ mounting structure.

43. (currently amended) The device according to claim 9 wherein ~~another~~ a second end of the shaft is disposed in ~~another~~ a fixed structure, the ~~another~~ fixed structure being ~~lighter~~ more massive or having lower sensitivity to vibratory forces generating an acoustic source than the ~~[[first]]~~ mounting structure.

44. (currently amended) The device according to claim 10 wherein ~~another~~ a second end of the shaft is disposed in ~~another~~ a fixed structure, the ~~another~~ fixed structure being ~~lighter~~ more massive or having lower sensitivity to vibratory forces generating an acoustic source than the ~~[[first]]~~ mounting structure.

45. (currently amended) The device according to claim 11 wherein ~~another~~ a second end of the shaft is disposed in ~~another~~ a fixed structure, the ~~another~~ fixed structure being ~~lighter~~ more massive or having lower sensitivity to vibratory forces generating an acoustic source than the ~~[[first]]~~ mounting structure.

46. (currently amended) The device according to claim 15 wherein ~~another~~ a second end of the shaft is disposed in ~~another~~ a fixed structure, the ~~another~~ fixed structure being ~~lighter~~ more massive or having lower sensitivity to vibratory forces generating an acoustic source than the ~~[[first]]~~ mounting structure.

47. (currently amended) The device according to claim 22 wherein ~~another~~ a second end of the shaft is disposed in ~~another~~ a fixed structure, the ~~another~~ fixed structure being ~~lighter~~ more massive or having lower sensitivity to vibratory forces generating an acoustic source than the ~~[[first]]~~ mounting structure.

48. (currently amended) The device according to claim 29 wherein ~~another~~ a second end of the shaft is disposed in ~~another~~ a fixed structure, the ~~another~~ fixed structure being ~~lighter~~ more massive or having lower sensitivity to vibratory forces generating an acoustic source than the ~~[[first]]~~ mounting structure.

49. (currently amended) The device according to claim 1 wherein ~~another~~ a second end of the shaft is disposed in ~~another~~ a fixed structure, the ~~another~~ second end being supported by a second ring having a diabolo shape generated by a revolution about an axis of the shaft.

50. (currently amended) The device according to claim 2 wherein ~~another~~ a second end of the shaft is disposed in ~~another~~ a fixed structure, the ~~another~~ second end being supported by a second ring having a diabolo shape generated by a revolution about an axis of the shaft.

51. (currently amended) The device according to claim 3 wherein ~~another~~ a second end of the shaft is disposed in ~~another~~ a fixed structure, the ~~another~~ second end being supported by a second ring having a diabolo shape generated by a revolution about an axis of the shaft.

52. (currently amended) The device according to claim 4 wherein ~~another~~ a second end of the shaft is disposed in ~~another~~ a fixed structure, the ~~another~~ second end being supported by a second ring having a diabolo shape generated by a revolution about an axis of the shaft.

53. (currently amended) The device according to claim 6 wherein ~~another~~ a second end of the shaft is disposed in ~~another~~ a fixed structure, the ~~another~~ second end being supported by a second ring having a diabolo shape generated by a revolution about an axis of the shaft.

54. (currently amended) The device according to claim 9 wherein ~~another~~ a second end of the shaft is disposed in ~~another~~ a fixed structure, the ~~another~~ second end being supported by a second ring having a diabolo shape generated by a revolution about an axis of the shaft.

55. (currently amended) The device according to claim 10 wherein ~~another~~ a second end of the shaft is disposed in ~~another~~ a fixed structure, the ~~another~~ second end being supported by a second ring having a diabolo shape generated by a revolution about an axis of the shaft.

56. (currently amended) The device according to claim 11 wherein ~~another~~ a second end of the shaft is disposed in ~~another~~ a fixed structure, the ~~another~~ second end being supported by a second ring having a diabolo shape generated by a revolution about an axis of the shaft.

57. (currently amended) The device according to claim 15 wherein ~~another~~ a second end of the shaft is disposed in ~~another~~ a fixed structure, the ~~another~~ second end being supported by a second ring having a diabolo shape generated by a revolution about an axis of the shaft.

58. (currently amended) The device according to claim 22 wherein ~~another~~ a second end of the shaft is disposed in ~~another~~ a fixed structure, the ~~another~~ second end being supported by a second ring having a diabolo shape generated by a revolution about an axis of the shaft.

59. (currently amended) The device according to claim 29 wherein ~~another~~ a second end of the shaft is disposed in ~~another~~ a fixed structure, the ~~another~~ second end being supported by a second ring having a diabolo shape generated by a revolution about an axis of the shaft.

60. (currently amended) The device according to claim 1 wherein the ~~shaft is affixed to~~ rotating member is an anode of an X-ray tube, the shaft being configured to receive the anode.

61. (withdrawn) A method for the manufacture of a diabolo comprising:
forming slots in a plate, the slots being interposed with non-inclined parallel beams, the parallel beams being held together at their ends by lintels;
shaping the plate around a circular chuck with an axis perpendicular to the lintels; and
twisting the circularly shaped lintels, with respect to each other, about an axis collinear with the axis of the chuck to incline the beams.

62. (withdrawn) A method for the manufacture of a diabolo comprising:
forming slots in a plate, the slots being interposed with parallel beams, the parallel beams being held together at their ends by lintels, the beams being inclined in relation to a direction perpendicular to the lintels;
deforming the formed plate by being force into a mold with a shape generated by revolution, with an axis of revolution orthogonal to the directions of the lintels; and
the mold having an embossment in a central part between the ends that receive the lintels.

63. (withdrawn) The method according to claim 61 wherein the plate is a parallelogram.

64. (withdrawn) The method according to claim 62 wherein the plate is a parallelogram.

65. (withdrawn) The method according to claim 61 wherein the plate is rectangular.

66. (withdrawn) The method according to claim 61 wherein the formed slots are straight between the lintels.

67. (withdrawn) The method according to claim 62 wherein the formed slots are straight between the lintels.

68. (withdrawn) The method according to claim 61 wherein the formed slots are rectilinear between the lintels.

69. (withdrawn) The method according to claim 62 wherein the formed slots are rectilinear between the lintels.

70. (withdrawn) The method according to claim 61 wherein the formed slots are oriented at a right angle to the direction of the lintels.

71. (withdrawn) The method according to claim 62 wherein the formed slots are oriented at a right angle to the direction of the lintels.

72. (withdrawn) The method according to claim 61 wherein an aperture is formed in at least one diametrically opposite parts of the lintels.

73. (withdrawn) The method according to claim 62 wherein an aperture is formed in at least one diametrically opposite parts of the lintels.

74. (withdrawn) The method according to claim 61 wherein an aperture is formed in two diametrically opposed parts of the lintels.

75. (withdrawn) The method according to claim 62 wherein an aperture is formed in two diametrically opposed parts of the lintels.

76. (withdrawn) A method for the manufacture of a diabolo comprising:
forming a diabolo from a cylinder by removing portions of the cylinder; and
forming beams in a wall of the diabolo, the beams being inclined.

77. (withdrawn) The method according to claim 61 wherein the inclination of the beams is about 50° relative to an axis of the diabolo.

78. (withdrawn) The method according to claim 62 wherein the inclination of the beams is about 50° relative to an axis of the diabolo.

79. (withdrawn) The method according to claim 63 wherein the inclination of the beams is about 50° relative to an axis of the diabolo.

80. (withdrawn) The method according to claim 65 wherein the inclination of the beams is about 50° relative to an axis of the diabolo.

81. (withdrawn) The method according to claim 66 wherein the inclination of the beams is about 50° relative to an axis of the diabolo.

82. (withdrawn) The method according to claim 68 wherein the inclination of the beams is about 50° relative to an axis of the diabolo.

83. (withdrawn) The method according to claim 70 wherein the inclination of the beams is about 50° relative to an axis of the diabolo.

84. (withdrawn) The method according to claim 72 wherein the inclination of the beams is about 50° relative to an axis of the diabolo.

85. (withdrawn) The method according to claim 74 wherein the inclination of the beams is about 50° relative to an axis of the diabolo.

86. (withdrawn) The method according to claim 76 wherein the inclination of the beams is about 50° relative to an axis of the diabolo.

87. (withdrawn) The method according to claim 77 wherein the inclination of the beams is $50^\circ \pm 10^\circ$.

88. (withdrawn) The method according to claim 77 wherein the inclination of the beams is $50^\circ \pm 5^\circ$.

89. (withdrawn) The method according to claim 61 wherein the diabolo shape has twist angle greater than or less than 50° .

90. (withdrawn) The method according to claim 62 wherein the diabolo shape has twist angle greater than or less than 50° .

91. (cancelled)

92. (withdrawn) The method according to claim 61 wherein the diabolo has a hyperboloid shape.

93. (withdrawn) The method according to claim 62 wherein the diabolo has a hyperboloid shape.

94. (withdrawn) The method according to claim 76 wherein the diabolo has a hyperboloid shape.

95. (withdrawn) The method according to claim 92 wherein the hyperboloid shape has an inner curvature diameter that is less than the initial diameter.

96. (new) The device according to claim 1, wherein:
- the ring comprises a diabolo shape configured as though formed by a revolution about an axis of the shaft; and
 - the rotating member is configured to rotate about an axis aligned with the shaft.